

ABSTRACT

An exemplary tuning circuit is coupled to a voltage controlled oscillator. The tuning circuit comprises a lock detect monitoring circuit, a VTUNE monitoring circuit and an autotuner circuit. The lock detect monitoring circuit is coupled to a phase locked loop of the voltage controlled oscillator and is configured to determine a state of the phase locked loop. The VTUNE monitoring circuit is coupled to a loop filter of the voltage controlled oscillator and is configured to determine the fine tuning voltage generated by the loop filter. The autotuner circuit is connected to the lock detect monitoring circuit and the VTUNE monitoring circuit and is configured to provide coarse tuning of the voltage controlled oscillator based on the fine tuning voltage and the state of the phase locked loop.